HW#96: Rhombus

Honors Geometry  
Due: Thursday March 17th, 2016

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP:\_\_\_\_\_

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| Objective | YWBAT find angle measures of a rhombus. | |
| Guided Notes: Label all the missing angles.  50° | | Opposite angles are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ angles are supplementary.  Diagonals \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ each other, and create  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ degree \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the point of intersection. The diagonals also \_\_\_\_\_\_\_\_\_\_\_\_\_\_ the angles at each vertex.  All sides are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. |
| 1. Label all missing angles.  50° | | 2. Label all missing angles.  4 in  4 in  4 in  150°  4 in |
| 3. FDIG is a rhombus. Find m∠F .  *F*  3x    *D*  4x - 10  *G*  *I* | | 4. m∠D = 63°. m∠CAE = 12x – 7 and m∠BAE = 3x – 9.  Solve for x.  3x - 9  12x - 7 |

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| Objective | YWBAT use the properties of the diagonals [perpendicular bisectors and angle bisectors] of a rhombus to solve for the diagonals or side lengths. | |
| 7.  Find the length of each diagonal.   AC =    DB =  B  C  D  A  17 ft  11 ft  Find the side length of rhombus ABCD   Side length = | | 8.  Find the length of each diagonal.   GE =   DF =  50 in.  40 in  G  F  E  D |
| Find the side lengths of Rhombus ABCD with AC = 10 and BD = 17.  A  B  D  C  Side Length = | | Find the side length of diagonal WY.  X  W  Y  Z  WY =  30  17  17  17  17 |

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| Objective | YWBAT find the area of a rhombus using right triangles. | |
| 13. ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.12.00%20AM | | 14. ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.14.43%20AM |

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| Objective | You will be able to find the area and perimeter of a rhombus. You will be able to solve for the height and side lengths of a rhombus. |
| MULTISTEP For each problem below, use strategies for solving right triangles in order find the dimensions you need to answer each problem. | |
| 17. Find the area and perimeter of the rhombus.  50 in.  40 in  Area =  Perimeter = | 18. Find the area and perimeter of the rhombus.  15 ft  11 ft    Area =  Perimeter = |
| ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%209.14.43%20AM19. m∠G= 78° and GE = 6 cm. Find the area and perimeter of rhombus EFGH.  Area =  Perimeter = | |
| QUADRILATERAL REVIEW Complete the problems below using your knowledge of different quadrilaterals and their properties. | |
| Classify the following quadrilaterals and give at least 1 piece of evidence to support your claim.  ../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.17.48%20AM../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.17.45%20AM../../../../../Desktop/Screen%20Shot%202016-03-06%20at%2010.18.10%20AM20. 21.  22. | |